

# Interference microscopy for surface metrology

## What is the MarSurf WI?

- Optical (White light Interference Microscope), non-contact, surface topography mapping instrument

## What can the MarSurf WI measure?

- Roughness, waviness and flatness (profile and areal parameters according to ISO and ASME standards)
- Micro-contour (radius, angle, pitch, etc.)
- Micro-geometry and form (depth, height, width, volume, area, etc.)

## Who uses the MarSurf WI?

- Laboratories, QC/QA departments
- Process development and control
- Production

## Why is the MarSurf WI used?

- Easy to acquire high speed digital data
- Extremely low roughness ( $R_a < 1 \text{ nm}$ ) measurement capability
- Flatness measurements over larger areas

## What are the advantages of the MarSurf WI?

- High vertical resolution and low noise levels over large fields of view
- Transparent specifications (ask about the fair data sheet initiative)
- Documentation and traceability via certified artifacts
- Direct correlation to contact stylus roughness parameters
- Customizable and automatable to fit your exact needs
- Support and expertise from your trusted metrology partner - Mahr Inc.

Objective*	10x	20x	50x
Field of View (mm x mm)**	1.8 x 1.5	0.90 x 0.75	0.36 x 0.30
Rayleigh Lateral Resolution ( $\mu\text{m}$ )	1.03	0.77	0.69
Vertical Noise (nm)***	0.16	0.16	0.16
Vertical Resolution (nm)***	0.43	0.43	0.43

\* 2.5, 5 and 100x objectives also available

\*\* Can be increased using standard automatic stitching function on WI 50 and WI 100

\*\*\* According to ISO 25178-604 definition



MarSurf WI 50M—entry-level system with manual XYZ axes coupled with our highest performing WI sensor



MarSurf WI 50—compact footprint with 50 mm x 50 mm x 75 mm XYZ motorized CNC stages



MarSurf WI 100—automatable instrument with 100 mm x 100 mm x 75 mm XYZ motorized CNC stages